

CRITICAL ITEMS LIST (CIL)

SYSTEM:	Thermal Protection System	FUNCTIONAL CRIT:	i
SUBSYSTEM:	Components	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	T.02
DCN & DATE:			
ANALYSTS:	B. Burkes/R. Lauto		

FAILURE MODE: Loss of SOFI Material

FAILURE EFFECT: b) Loss of Mission and vehicle/crew due to debris impacting Orbiter in critical areas.

TIME TO EFFECT: Seconds

FAILURE CAUSE(S):
 A: Material Deficiency
 B: Process Deficiency

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: This foam prevents ice/frost formation on the LO2 feedline brackets during prelaunch.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.8.12.1	80971028460	Yoke Assy, SOFI	5	LWT-54 & Up
	80971028460	Strut Assy, SOFI	5	LWT-54 & Up
	80971008428	TPS C/O LO2 F/L Final Assy	1	LWT-54 & Up
	80974008419	Foam Appl-LO2 F/L Support	1	LWT-54 & Up

REMARKS: The LO2 feedline bracket related SOFI applications are grouped as the failure mode, causes and effects are the same.

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

SYSTEM: Thermal Protection System
SUBSYSTEM: Components
FMEA ITEM CODE(S): 5.B.12.1

REV & DATE: J, 12-19-97
DCN & DATE:

RATIONALE FOR RETENTION

STP1505, 1513, 1518, 1532, 1536, 3005, 3008, 5013, 6005-III and 6014 are applicable to this FMEA Item Code. See Page 1 for Retention Rationale specified by these STP's. The following additional Retention Rationale is also applicable to this FMEA Item Code:

DESIGN:

No additional Rationale for Retention is applicable.

TEST:

The LC2 Feedline Bracket related SDFI applications are certified. Reference HCS's NMC-ET-TM08-L-TD13, T503, T504 and T507. Refer to the HCS(s) for effectivity data applicable to specific part numbers and material type.

INSPECTION:

No additional Rationale for Retention is applicable.

FAILURE HISTORY:

Current data on test failures, unexplained anomalies and other failures experienced during ground processing activity can be found in the PRACA data base.